

AMENDMENTS TO THE CLAIMS

Kindly cancel Claim 9 without prejudice and with right of re-entry into this application or any other appropriate application. Please amend Claims 1, 3-6, 10, 12-14, 16-17, 19-23, 25, 27-33, 37, 40-43, 45, 47-51, 53, 55-57, 59-60, and 62-67, and add new Claims 68-76 as follows.

1(currently amended). A spinal plate assembly, comprising:

- (a) a spinal plate, said spinal plate having a length, and defining a longitudinal direction along the length, and a transverse direction transverse to the length, said spinal plate further comprising a top surface, a bottom surface opposite the top surface, ~~the bottom surface being suitable for being positioned adjacent bone structure of a recipient user,~~ and a plurality of bone-fastener-receiving apertures; and
- (b) a resiliently transversely movable retaining element mounted to said spinal plate, and extending from a between first said one of said bone-fastener-receiving apertures to a and second said one of said bone-fastener-receiving apertures, and interfering with ~~extending into~~ at least one of said bone-fastener-receiving apertures, ~~said retaining element being effective, when said a bone fastener is driven through a said aperture into bone structure of such recipient user and past said resiliently movable retaining element, as a consequence of driving such bone fastener, to activate a blocking feature of said spinal plate assembly, which blocking feature inhibits the bone fastener withdrawing out of said spinal plate assembly and past said retaining element.~~

2(original). A spinal plate assembly as in Claim 1 wherein said retaining element comprises a plastic composition which is safe for use in living human or animal bodies, as an implantable plastic, and which retaining element has suitable strength, rigidity, and deflection properties to perform retaining functions in a routine implant use environment.

3(currently amended). A spinal plate assembly as in Claim 2 wherein said ~~the plastic composition of the~~ retaining element comprises one or more materials selected from the group consisting of polyetherimide copolymer, acetal copolymer, polyethersulfone, polyarylethersulfone, polycarbonate, ultra high molecular weight polyethylene, polyetheretherketone, and polyaryletherketone, and blends and mixtures of said materials.

4(currently amended). A spinal plate assembly as in Claim 2 wherein the ~~plastic composition of~~ said retaining element ~~the band~~ comprises at least one of polyetheretherketone and polyaryletherketone.

5(currently amended). A spinal plate assembly as in Claim 2 wherein the ~~plastic composition of~~ said retaining element ~~the band~~ comprises polyetheretherketone.

6(currently amended). A spinal plate assembly as in Claim 2 wherein the ~~plastic composition of~~ said retaining element ~~the band~~ comprises polyaryletherketone.

7(original). A spinal plate assembly as in Claim 1 wherein composition of said spinal plate comprises at least one of titanium and titanium alloy.

8(original). A spinal plate assembly as in Claim 1 wherein composition of said movable retaining element comprises at least one of titanium, titanium alloy, and stainless steel.

9(canceled).

10(currently amended). A spinal plate assembly as in Claim 2, said retaining element comprising a resiliently movable retaining band, a length of said band extending to alongside, and extending across at least a portion of, one or more corresponding ones of the apertures, composition and structure of said resiliently movable band being adapted such that, as such bone fastener is driven ~~alongside and~~ past said movable band, said movable band responds ~~can respond~~ to transverse urging of such bone fastener thereby to move transversely of the length of said band, from a first position, until a control structure on such bone fastener is driven past said the band, whereupon said the band returns toward ~~can return to~~ the first position and overlies ~~overlie~~ the control structure of the so-driven bone fastener and thereby prevents ~~prevent~~ the bone fastener from withdrawing from said spinal plate.

11(original). A spinal plate assembly as in Claim 1, said retaining element comprising a resiliently flexible band, a length of said band extending alongside and extending across a portion of, one or more corresponding ones of the bone-fastener-receiving apertures.

12(currently amended). A spinal plate assembly as in Claim 1, said spinal plate further comprising a channel communicating with ~~extending downwardly from~~ the top surface of said spinal plate, the channel having a opposing side wall walls thereof cooperating with a ~~opening into and extending alongside ones of~~ said ~~plurality of~~ bone-fastener-receiving aperture ~~apertures~~, said retaining element being disposed in the said channel and extending along the channel.

13(currently amended). A spinal plate assembly as in Claim 2, said spinal plate further comprising a channel communicating with ~~extending downwardly from~~ the top surface of said spinal plate, the channel having a opposing side wall walls thereof cooperating with a ~~opening into and extending alongside ones of~~ said ~~plurality of~~ bone-fastener-receiving aperture ~~apertures~~, said retaining element being disposed in the said channel and extending along the channel.

14(currently amended). A spinal plate assembly as in Claim 10 wherein at least all except two of said bone-fastener-receiving apertures comprise slots, all of said slots having commonly oriented axes extending along elongate dimensions of the said slots, thus enabling longitudinal movement of such bone fasteners in the said slots, with respect to said spinal plate, ~~after said spinal plate assembly has been installed in a recipient user.~~

15(original). A spinal plate assembly as in Claim 14 wherein all of said bone-fastener-receiving apertures comprise slots.

16(currently amended). A spinal plate assembly as in Claim 1 ~~40~~ wherein first and second ones of said bone-fastener-receiving apertures comprise circular openings.

17(currently amended). A spinal plate assembly as in Claim 1 ~~40~~ wherein all said bone-fastener-receiving apertures comprise circular openings.

18(original). A spinal plate assembly as in Claim 1 wherein said movable retaining element extends along substantially the full length of said spinal plate.

19(currently amended). A spinal plate assembly as in Claim 1, said movable retaining element comprising a first movable retaining band, and including a second movable retaining band and wherein the first and second movable bands ~~extend along substantially full lengths of respective first and second sides of the channel, said first and second movable bands collectively~~ extend ~~extending~~ along the sides of all of the bone-fastener-receiving apertures.

20(currently amended). A spinal plate assembly as in Claim 3, said movable retaining element comprising a first movable retaining band, and including a second movable retaining band, having a composition corresponding to the composition of the first movable retaining band, and cooperating with the first retaining band, and wherein the first and second movable retaining bands collectively extend along the sides of all of the bone-fastener-receiving apertures.

21(currently amended). A spinal plate assembly as in Claim 1 ~~3~~, said movable retaining element comprising a movable retaining band, and further comprising a band retainer securing said movable band to said spinal plate while accommodating limited movement of said movable band while said band is secured to said spinal plate.

22(currently amended). A spinal plate assembly as in Claim 10, further comprising ~~a resiliently movable retaining band, and~~ one or more band retainers mounting said movable retaining band to said spinal plate.

23(currently amended). A spinal plate assembly as in Claim 10, further comprising a second resiliently movable retaining band, and wherein said movable retaining bands are ~~properly~~ positioned with respect to said apertures so as to let control structure on a ~~respective such~~ bone fastener pass below a respective said movable retaining band, with corresponding resilient movement of said movable retaining band, and without exceeding a flexural limit of said movable band, such that said movable band returns to a blocking position over such bone fastener after such control structure on such bone fastener passes beyond ~~below~~ the respective said movable retaining band.

24(original). A spinal plate assembly as in Claim 10, further comprising a band retainer securing said movable retaining band to said spinal plate at loci away from the bone-fastener-receiving apertures.

25(currently amended). A spinal plate assembly as in Claim 13, ~~said spinal plate being elongate,~~ said bone-fastener-receiving apertures being arrayed in first and second rows along the a length of said spinal plate, said spinal plate assembly further comprising a second resiliently movable retaining band, wherein said first and second resiliently movable retaining bands are disposed ~~mounted~~ at the opposing side walls of the channel, and extend along at least portions ~~a portion~~ of those portions of the length of the channel where the channel opens into the bone-fastener-receiving apertures.

26(original). A spinal plate assembly as in Claim 25 wherein at least two of the bone-fastener-receiving apertures comprise slots, and wherein all of said bone-fastener-receiving slots have commonly oriented elongate axes.

27(currently amended). A spinal plate assembly as in Claim 1 ~~3~~, said retaining element comprising a resiliently movable ~~flexible~~ band, a portion of a length of said band being positioned alongside, and extending across a portion of, one or more of the apertures.

28(currently amended). A spinal plate assembly as in Claim 27, including ~~a~~ an intermittent channel (26) extending along the length of the spinal plate, and ~~intermittently expressed~~ intermittently a long the length of said spinal plate and adjacent respective ones of the apertures.

29(currently amended). A spinal plate assembly as in Claim 1, said retaining element comprising a resiliently movable ~~flexible~~ band, a portion of a length of said band extending across a portion of at least one of the apertures, said spinal plate further comprising ~~a~~ an intermittent channel (26) extending along the length of the spinal plate, and intermittently expressed intermittently along the length of said spinal plate adjacent respective ones of the apertures, and wherein the composition of said retaining element comprises at least one of titanium, titanium alloy, and stainless steel.

30(currently amended). A spinal plate assembly as in Claim 27 1, further comprising a the channel communicating with ~~extending downwardly from~~ the top surface of said spinal plate.

31(currently amended). A spinal plate assembly as in Claim 29, the channel communicating with ~~extending downwardly from~~ the top surface of said spinal plate.

32(currently amended). A spinal plate assembly as in Claim 27, further comprising band retainer structure securing the resiliently movable ~~flexible~~ band in said spinal plate assembly.

33(currently amended). A spinal plate assembly as in Claim 29, further comprising band retainer structure securing the resiliently movable ~~flexible~~ band in said spinal plate assembly.

34(original). A spinal plate assembly as in Claim 32 wherein said band retainer structure is comprised in, and is an integral part of, said spinal plate.

35(original). A spinal plate assembly as in Claim 33 wherein said band retainer structure is comprised in, and is an integral part of, said spinal plate.

36(original). A spinal plate assembly as in Claim 10 wherein said resiliently movable band is under constant flexural stress.

37(currently amended). A spinal plate assembly as in Claim 27 wherein said resiliently movable ~~flexible~~ band is under constant flexural stress.

38(original). A spinal plate assembly as in Claim 26 wherein said resiliently movable band is under constant flexural stress.

39(original). A spinal plate assembly as in Claim 29 wherein said resiliently movable band is under constant flexural stress.

40(currently amended). A spinal plate assembly as in Claim 3 wherein at least all except two of said bone-fastener-receiving apertures comprise slots, having commonly oriented elongate axes enabling longitudinal movement of bone fasteners in said slots, with respect to said spinal plate ~~after the spinal plate assembly is installed in a recipient user of said spinal plate assembly.~~

41(currently amended). A spinal plate assembly, comprising:

- (a) a spinal plate, said spinal plate having a length, and defining a longitudinal direction along the length, and a transverse direction transverse to the length, said spinal plate further comprising a top surface, a bottom surface opposite the top surface, ~~the bottom surface being suitable for being positioned adjacent bone structure of a recipient user,~~ and a plurality of bone-fastener-receiving apertures, said spinal plate further comprising a ~~an intermittent~~ channel (26) ~~extending along the length of the spinal plate, and~~

~~intermittently~~ expressed intermittently along the length of said spinal plate adjacent the apertures; and

- (b) a resiliently transversely movable retaining band mounted to said spinal plate, said resiliently transversely movable retaining band moving transversely from a first position ~~being effective~~, when a bone fastener is driven through a said aperture, into bone structure of a recipient user, and past said retaining band, ~~as a consequence of driving such bone fastener,~~ and subsequently moving transversely back toward the first position and into interfering relationship with such bone fastener, thus to activate a blocking feature of said spinal plate assembly, which blocking feature inhibits the bone fastener withdrawing out of said spinal plate assembly and past said retaining band.

42(currently amended). A spinal plate assembly as in Claim 41 wherein the channel intermittently extends from the top surface of said spinal plate toward the bottom surface of said spinal plate, the channel having a side wall extending to opening into a respective one of said plurality of bone-fastener-receiving apertures, ~~said band comprising one or more bands disposed in the channel.~~

43(currently amended). A spinal plate assembly as in Claim 42, further comprising band retainer structure mounting said ~~the~~ retaining band in said spinal plate assembly.

44(original). A spinal plate assembly as in Claim 41 wherein said retaining band comprises a plastic composition which is safe for use in living human or animal bodies, as an implantable plastic, and which band has suitable strength,

rigidity, and deflection properties to perform retaining functions in a routine implant use environment.

45(currently amended). A spinal plate assembly as in Claim 44 wherein ~~the plastic composition of the~~ said retaining band comprises one or more materials selected from the group consisting of polyetherimide copolymer, acetal copolymer, polyethersulfone, polyarylethersulfone, polycarbonate, ultra high molecular weight polyethylene, polyetheretherketone, and polyaryletherketone.

46(original). A spinal plate assembly as in Claim 41 wherein composition of said spinal plate comprises at least one of titanium and titanium alloy.

47(currently amended). A spinal plate assembly as in Claim 41 wherein composition of said movable retaining band ~~element~~ comprises at least one of titanium, titanium alloy, and stainless steel.

48(currently amended). A spinal plate assembly as in Claim 41 45, further comprising band retainer structure mounting said ~~the~~ retaining band in said spinal plate assembly.

49(currently amended). A spinal plate assembly as in Claim 47, further comprising band retainer structure mounting said ~~the~~ retaining band in said spinal plate assembly.

50(currently amended). A spinal plate assembly, comprising:

- (a) a spinal plate, said spinal plate having a length, and defining a longitudinal direction along the length, and a transverse direction transverse to the length, said spinal plate further comprising a top surface, a bottom surface opposite the top surface, and a plurality of bone-fastener-receiving apertures, ~~at least two of said bone-fastener-receiving apertures comprising slot-shaped apertures, all of the slot-shaped apertures having commonly oriented elongate axes along elongate dimensions of said slot-shaped apertures; and~~
- (b) a resiliently transversely movable retaining band mounted to said spinal plate, said retaining band being disposed in a recess in said spinal plate, the recess having a side wall, said retaining band moving transversely from a first position effective, when an interfering a bone fastener is driven through a said aperture, and into such bone structure of a recipient user, and past said retaining band, such driving of such bone fastener thus moving said retaining band transversely from the first position, in a direction away from the respective aperture, and away from the side wall of the recess, said resiliently transversely movable retaining band moving transversely back toward the first position after disengagement of such bone fastener from said retaining band, thereby to activate a blocking feature of said spinal plate assembly, which blocking feature interferes with the bone fastener withdrawing out of said spinal plate assembly and past said retaining band.

51(currently amended). A spinal plate assembly as in Claim 50, said retaining band extending from a between first said aperture to a and second ones of said bone-fastener-receiving aperture apertures and interfering with at least

one of ~~extending into~~ said first and second ones of said bone-fastener-receiving apertures.

52(original). A spinal plate assembly as in Claim 50 wherein said retaining band comprises a plastic composition which is safe for use in living human or animal bodies, as an implantable plastic, and which retaining band has suitable strength, rigidity, and deflection properties to perform retaining functions in a routine implant use environment.

53(currently amended). A spinal plate assembly as in Claim 50 ~~52~~ wherein said ~~the plastic composition of the~~ retaining band comprises one or more materials selected from the group consisting of polyetherimide copolymer, acetal copolymer, polyethersulfone, polyarylethersulfone, polycarbonate, ultra high molecular weight polyethylene, polyetheretherketone, and polyaryletherketone, and blends and mixtures of said materials.

54(original). A spinal plate assembly as in Claim 50 wherein composition of said spinal plate comprises at least one of titanium and titanium alloy.

55(currently amended). A spinal plate assembly as in Claim 50 wherein composition of said resiliently movable retaining band ~~element~~ comprises at least one of titanium, titanium alloy, and stainless steel.

56(currently amended). A spinal plate assembly as in Claim 50 ~~52~~, the ~~recess said spinal plate further~~ comprising a channel extending from the top surface toward the bottom surface of said spinal plate, the channel having a side

wall ~~opening into and~~ extending to ~~alongside~~ ones of said plurality of bone-fastener-receiving apertures, said retaining band being disposed in said channel and extending along the channel.

57(currently amended). A spinal plate assembly as in Claim 55, the recess said spinal plate further comprising a channel extending from the top surface toward the bottom surface of said spinal plate, the channel having a side wall ~~opening into and~~ extending to ~~alongside~~ ones of said plurality of bone-fastener-receiving apertures, said retaining band being disposed in said channel and extending along the channel.

58(original). A spinal plate assembly as in Claim 50 wherein all of said bone-fastener-receiving apertures comprise slots, having lengths greater than respective widths of said slots.

59(currently amended). A spinal plate assembly combination, comprising:

- (a) a spinal plate, said spinal plate having a length, and defining a longitudinal direction along the length, and a transverse direction transverse to the length, said spinal plate further comprising a top surface, a bottom surface opposite the top surface, and a plurality of bone-fastener-receiving apertures; ~~and~~
- (b) a transversely laterally resiliently movable retaining band mounted to said spinal plate and interfering with ~~extending into~~ at least one of said bone-fastener-receiving apertures; and

(c) at least one bone fastener, said at least one bone fastener comprising a shank, and blocking structure, said blocking structure on said bone fastener, when said retaining band being effective, when a bone fastener is being driven through a said aperture and into such bone structure of a recipient user, engaging including a blocking surface on the bone fastener being moved past said retaining band and displacing said retaining band laterally, from a first position, in a transverse direction so as to enable said blocking structure to move sufficiently past said retaining band to release said retaining band from said blocking structure on said bone fastener, such that said retaining band automatically moves back toward the first position and thus, to automatically activate a blocking feature of said spinal plate assembly, which blocking feature interferes with withdrawal of said the bone fastener past said retaining band and withdrawing out of said spinal plate assembly combination and past said retaining band.

60(currently amended). A spinal plate assembly combination as in Claim 59, said retaining band extending from a between first said bone-fastener-receiving aperture to a and second ones of said bone-fastener-receiving aperture apertures.

61(previously presented). A spinal plate assembly as in Claim 59 wherein said retaining band comprises a plastic composition which is safe for use in living human or animal bodies, as an implantable plastic, and which retaining band has suitable strength, rigidity, and deflection properties to perform retaining functions in a routine implant use environment.

62(currently amended). A spinal plate assembly combination as in Claim 61 wherein the plastic composition of the retaining band comprises one or more materials selected from the group consisting of polyetherimide copolymer, acetal copolymer, polyethersulfone, polyarylethersulfone, polycarbonate, ultra high molecular weight polyethylene, polyetheretherketone, and polyaryletherketone, and blends and mixtures of said materials.

63(currently amended). A spinal plate assembly combination as in Claim 59 wherein composition of said spinal plate comprises at least one of titanium and titanium alloy.

64(currently amended). A spinal plate assembly combination as in Claim 59 wherein composition of said movable retaining element comprises at least one of titanium, titanium alloy, and stainless steel.

65(currently amended). A spinal plate assembly combination as in Claim ~~59~~ 64, said spinal plate further comprising a channel communicating with ~~extending from the top surface toward the bottom surface~~ of said spinal plate, the channel having a side wall which extends to at least one opening into and extending alongside ones of said plurality of bone-fastener-receiving apertures, said retaining band being disposed in said channel and extending into at least one of said bone-fastener-receiving apertures along the channel.

66(currently amended). A spinal plate assembly combination as in Claim 64, said spinal plate further comprising a channel communicating with ~~extending from the top surface toward the bottom surface~~ of said spinal plate, the channel having a side wall which extends to at least one opening into and extending

~~alongside ones~~ of said plurality of bone-fastener-receiving apertures, said retaining band being disposed in said channel and extending into at least one of said bone-fastener-receiving apertures along the channel.

67(currently amended). A spinal plate assembly combination as in Claim 59 wherein all of said bone-fastener-receiving apertures comprise slots, having lengths greater than respective widths of said slots.

68(new). A spinal plate assembly as in Claim 1, further comprising at least one bone fastener, said at least one bone fastener comprising a shank, and blocking structure, said bone fastener when driven through a said aperture and into bone structure of such recipient user, moving said retaining element from a first position to a moved position, so as to enable said blocking structure to move past said moved retaining element, said retaining element automatically, and as a consequence of the driving of said blocking structure past said retaining element, moving back toward the first position and thereby activating a blocking feature of said spinal plate assembly, which blocking feature inhibits the respective bone fastener withdrawing past said retaining element.

69(new). A spinal plate assembly combination as in Claim 59 wherein all of said bone-fastener-receiving apertures comprise circular openings.

70(new). A spinal plate assembly, comprising:

- (a) a spinal plate, said spinal plate comprising a top surface, a bottom surface opposite the top surface, a plurality of bone-fastener-

receiving a pertures, and a recess extending from the top surface toward the bottom surface, the recess comprising a side wall; and

- (b) a resiliently transversely movable retaining band mounted to said spinal plate, a length of said retaining band interfering with at least one of the apertures,

said spinal plate assembly being adapted and configured such that, when a bone fastener is driven through a said aperture into bone structure of such recipient user, and wherein blocking structure on such bone fastener interferes with said retaining band, such retaining band moves from a first position at lateral urging of said bone fastener, in a direction away from the respective aperture, and correspondingly away from the side wall of the recess.

71(new). A spinal plate assembly as in Claim 70 wherein said retaining band automatically moves back toward the first position when released from such blocking structure, thereby to activate a blocking feature of said spinal plate assembly, which blocking feature interferes with the bone fastener withdrawing out of said spinal plate assembly and past said retaining band.

72(new). A spinal plate assembly as in Claim 71 wherein, as such bone fastener is driven, such blocking structure of such bone fastener can move said retaining band from the first position, until such blocking structure moves past said retaining band, whereupon said retaining band automatically returns toward the first position and overlies such blocking structure of such so-driven bone fastener and thereby prevents such bone fastener from withdrawing from such bone structure.

73(new). A spinal plate assembly, comprising:

- (a) a spinal plate, said spinal plate comprising a top surface, a bottom surface opposite the top surface, and a plurality of bone-fastener-receiving apertures, said spinal plate further comprising a channel communicating with the top surface of said spinal plate and with at least one of said bone-fastener-receiving apertures; and
- (b) a resiliently transversely movable retaining band mounted to said spinal plate, said retaining band being effective, when an interfering bone fastener is driven through a said aperture into bone structure of a recipient user of said spinal plate assembly, and wherein blocking structure on such bone fastener is driven past said retaining band, to automatically resiliently move at lateral urging of such bone fastener, and thereby to activate a blocking feature of said spinal plate assembly, which blocking feature interferes with the bone fastener withdrawing out of said spinal plate assembly and past said band, said retaining band being disposed in the channel and extending along the channel.

74(new). A spinal plate assembly as in Claim 73 wherein said retaining band is moved from a first position laterally away from such blocking structure, and automatically moves back toward the first position when said retaining band is released from such blocking structure, thereby to activate the blocking feature.

75(new). A spinal plate assembly as in Claim 74 wherein, as such bone fastener is driven, such blocking structure of such bone fastener can laterally urge and move said retaining band from the first position, until such blocking structure moves past said retaining band, whereupon said retaining band

automatically returns toward the first position and overlies such blocking structure of such so-driven bone fastener and thereby prevents such bone fastener from withdrawing from such bone structure.

76(new). A spinal plate assembly as in Claim 1, said resiliently transversely movable retaining element extending longitudinally from a first said one of said bone-fastener-receiving apertures to a second said one of said bone-fastener-receiving apertures.